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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,074

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Gregor Schwegler

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EXAMINER

DREIDAME, HUNTER M

ART UNIT

PAPER NUMBER

3633

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,074	Applicant(s) SCHWEGLER, GREGOR	
	Examiner HUNTER M. DREIDAME	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/23/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 23 December 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the circular, elliptical, square, and rectangular cross-sections of the sleeve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The Specification cannot refer to claims by claim number. In the immediate case, applicant has referred to claims 1 and 10 on page 1, lines 4 and 6, of the Specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 18, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-17, 19-20, and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,082,063 to Shrive et al.

As to claim 15, Shrive et al. disclose a device (Fig. 13) having a CFRP sheet (34) for reinforcing bearing structures, characterized in that the ends of the CFRP sheet are provided with coupling means (10, 20), or means for a bonding bridge, which emerge in a respective termination element (20) in which the CFRP sheet with respectively at least one wedge (24) are pressed in.

As to claim 16, Shrive et al. disclose the device as claimed in claim 15, characterized in that the coupling means are applied to the CFRP sheet at least on one side (shown in Fig. 1).

As to claim 17, Shrive et al. disclose the device as claimed in claim 15, characterized in that the coupling means, in the region of the termination element, at least partially cover the latter (shown in Fig. 1).

As to claim 19, Shrive et al. disclose the device as claimed in claim 15, characterized in that the termination element has a sleeve (38), in which at least the inner side is conically configured.

As to claim 20, Shrive et al. disclose the device as claimed in claim 19, characterized in that the sleeve has a substantially circular or elliptical inner cross section (lines 48-52, col. 6).

As to claim 22, Shrive et al. disclose the device as claimed in claim 15, characterized in that the termination element is made of metal (line 55, col. 5).

As to claim 23, Shrive et al. disclose the device as claimed in claim 15, characterized in that the coupling means are located between the inner side of the sleeve and the wedges and at least partially cover the latter (shown in Fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,082,063 in view of US Patent 6,513,287 to Sorkin.

As to claim 18, Shrive et al. disclose the device as claimed in claim 15.

Shrive et al. do not disclose that the device is characterized in that the coupling means consist of an adhesive, of an abrasive, such as, say, of a grain size of 0.1- 1.0 mm, of a film provided with an abrasive, of a powder coating or a plasma coating.

Sorkin discloses an anchorage means (Fig. 2) wherein the coupling means (42) consist of an abrasive (teeth on 42, Fig. 2).

In view of Sorkin, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the device of Shrive et al. with the abrasive of Sorkin as a means of frictionally engaging the CFRP sheet and preventing slippage.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,082,063.

As to claim 21, Shrive et al. disclose the device as claimed in claim 19.

Shrive et al. do not disclose that the device is characterized in that the sleeve has a substantially square or rectangular inner cross section.

However, it would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have made the sleeve of Shrive et al. in whatever shaped desired according to the shape of the sheet which it is surrounding, as Shrive et al. disclose that many different types of sheets may be used (lines 38-46, col. 2).

Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,617,685 to Meier et al. in view of US Patent 6,082,063 to Shrive et al.

As to claim 24, Meier et al. disclose a process for reinforcing bearing structures (Fig. 3) characterized in that bearing structure recesses (13) are made, in that a sheet (11) is guided, in sequence, through the first recess, disposed around the bearing structure, guided through the second recess.

Meier et al. do not disclose that the devices as claimed in claim 15 are used in the process.

Shrive et al. disclose using the device as claimed in claim 15 to reinforce a structure (Fig. 13), wherein recesses are made in which supports (10) are inserted and positioned, in that the CFRP sheet is guided, in sequence, through the first recess and the first support, through the first termination element, guided through the second recess and the second support and through the second termination element, until the CFRP sheet juts over the latter, in that the coupling (20) means are applied to the CFRP sheet in the region of the termination elements, in that the at least one wedge (20) of the second termination element is pressed into the second sleeve with the CFRP sheet (lines 12-15, col. 6), this being realized without pulling on the CFRP sheet, in that the at least one wedge of the first termination element is driven in or pressed in and in that the CFRP sheet is cut off above the first termination element (lines 12-15, col. 6, shown as the lower termination element in Fig. 13).

In view of Shrive et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the process of Meier et al. with the device of Shrive et al., as the CFRP sheet of Shrive et al. would have been an acceptable alternative to the reinforcing means of Meier et al. (Meier et al., lines 7-10, col. 6) and both references teach the process of creating a recess in which to have a support hold the sheet.

As to claim 25, Meier et al. disclose a process for reinforcing bearing structures (Fig. 3) characterized in that bearing structure recesses (13) are made, in that a sheet

(11) is guided, in sequence, through the first recess, disposed around the bearing structure, guided through the second recess.

Meier et al. do not disclose that the devices as claimed in claim 15 are used in the process.

Shrive et al. disclose using the device as claimed in claim 15 to reinforce a structure (Fig. 13), wherein recesses are made in which supports (10) are inserted and positioned, in that the CFRP sheet is guided, in sequence, through the first recess and the first support, through the first termination element, guided through the second recess and the second support and through the second termination element, until the CFRP sheet juts over the latter, in that the coupling (20) means are applied to the CFRP sheet in the region of the termination elements, in that the second sleeve is forced onto the at least one wedge of the second termination element (lines 12-15, col. 6), this being realized without pulling on the CFRP sheet, in that the first sleeve is forced onto the at least one wedge of the first termination element and the CFRP sheet and in that the CFRP sheet is cut off above the first termination element (lines 12-15, col. 6, shown as the lower termination element in Fig. 13).

In view of Shrive et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the process of Meier et al. with the device of Shrive et al., as the CFRP sheet of Shrive et al. would have been an acceptable alternative to the reinforcing means of Meier et al. (Meier et al., lines 7-10, col. 6) and both references teach the process of creating a recess in which to have a support hold the sheet.

As to claim 26, Meier et al., in view of Shrive et al., disclose the process as claimed in claim 24, characterized in that the device is fitted with or without prestress (Meier et al., lines 21-22, col. 3).

As to claim 27, Meier et al. disclose a process for reinforcing bearing structures (Fig. 3) characterized in that bearing structure recesses (13) are made, in that a sheet (11) is guided, in sequence, through the first recess, disposed around the bearing structure, guided through the second recess.

Meier et al. do not disclose that the devices as claimed in claim 15 are used in the process.

Shrive et al. disclose using the device as claimed in claim 15 to reinforce a structure (Fig. 13), wherein recesses are made in which supports (10) are inserted and positioned, in that the CFRP sheet is guided, in sequence, through the first recess and the first support, through the first termination element, guided through the second recess and the second support and through the second termination element, until the CFRP sheet juts over the latter, in that the coupling (20) means are applied to the CFRP sheet in the region of the termination elements, in that the CFRP sheet is prestressed, the at least one wedge being found loosely introduced in the sleeve, but not yet pressed in (lines 58-67, col. 2), In that the prestress is partially slackened, the at least one wedge being drawn in in self-wedging arrangement in the sleeve and in that the CFRP sheet is cut off above the first termination element (lines 58-67, col. 2; lines 12-15, col. 6, shown as the lower termination element in Fig. 13).

In view of Shrive et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the process of Meier et al. with the device of Shrive et al., as the CFRP sheet of Shrive et al. would have been an acceptable alternative to the reinforcing means of Meier et al. (Meier et al., lines 7-10, col. 6) and both references teach the process of creating a recess in which to have a support hold the sheet.

As to claim 28, Meier et al., in view of Shrive et al., disclose the process as claimed in claim 24, characterized in that the CFRP sheet is disposed around the traction side of the bearing structure to be reinforced and is stuck at least partially on the latter (via 21, Meier et al.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNTER M. DREIDAME whose telephone number is (571)272-5177. The examiner can normally be reached on Monday - Friday 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571)272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hunter M Dreidame/
Examiner, Art Unit 3633

/Robert J Canfield/

Supervisory Patent Examiner, Art Unit 3635